

Abstract

An ergonomic pointing device receives commands from a user for controlling an electronic device. The ergonomic pointing device generally comprises a shaft, a roller, and a frame. The shaft comprises a ground spring contact and two
5 direction-sensing spring contacts. The roller is disposed around the shaft so that the roller is free to rotate about the longitudinal axis of the shaft. The inside of the roller comprises a conductive surface that is arranged to remain in electrical contact with the ground spring contact of the shaft throughout the entire revolution of the roller. The
10 conductive surface is also arranged to alternately make and break electrical contact with the direction-sensing spring contacts during an entire revolution of the roller such that the direction and speed of the revolution of the roller can be determined. The shaft is free to move along the Z-axis but not to rotate about its longitudinal axis.

